



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,975	10/07/2003	Joachim Laurenz Naimer	128380.00005	4775
26710 7590 07/23/2007 QUARLES & BRADY LLP 411 E. WISCONSIN AVENUE SUITE 2040 MILWAUKEE, WI 53202-4497			EXAMINER TRAN, DALENA	
			ART UNIT 3661	PAPER NUMBER
			MAIL DATE 07/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/679,975	Applicant(s) NAIMER ET AL.	
	Examiner Dalena Tran	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3661

DETAILED ACTION

Notice to Applicant(s)

1. This office action is responsive to the amendment filed on 5/2/07. As per request, claims 33-36 have been amended. Claims 37-43 have been added. Thus, claims 33-43 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33, 37, 40, and 43, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 33, 37, 40, and 43, the limitations “**increase in size** of the fractional section of the arcuate vertical speed indicator of scale”, this limitation is not clear as to what and how the applicant means “increase in size of the fractional section”. In the remark of page 6, the amendment, applicant point to specification page 3, lines 6-9, however, this does not explain how it could be enlargement, or **increase in size** of the fractional section of VSI scale. For example, figure 1, shows VSI scale; figure 2, show 2 scale, they are the same scales as figure 1, the size does not shows an increase or enlargement at all; figure 3, just show indicate of VSI in a **different portion** of a semicircle, such as, items (300, 400) shows indicate of VSI along side of the semicircle, items (500, 600) shows indicate of VSI in an arc portion of the semicircle. Figure 3 does not show anything means an “**increase in size** of the fractional section of the arcuate vertical speed indicator of scale”. Explanation or verification of how it could be “enlargement”,

Art Unit: 3661

or “**increase in size** of the fractional section of VSI scale”, and which figure describes, is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 33-34, are rejected under 35 U.S.C.103(a) as being unpatentable over Staggs et al. (6,685,541) in view of Gralnick (4914733), and Feyereisen et al. (US 2003/0132860 A1).

As per claim 33, Staggs et al. disclose an electronic display for presenting data from a vertical speed source aboard an aircraft, wherein display comprises: a fractional section of an arcuate vertical speed indicator scale (see columns 7-8, lines 62-2); a vertical speed indicator marker (see column 7, line 60); wherein fractional section has non-linear graduations marked thereon in the vicinity of vertical speed indicator marker (see figure 1); TCAS resolution advisory indicators along a periphery of vertical speed indicator scale wherein TCAS resolution advisory indicators are shown during a TCAS resolution advisory condition, and wherein an attribute of vertical speed indicator marker changes to match an attribute of TCAS resolution advisory indicators during the advisory condition (see column 6, lines 53-54; and columns 7-8, lines 58-4). Staggs et al. do not disclose TCAS resolution advisory condition triggers an increase in size of the fractional section of the arcuate VSI. However, Gralnick discloses TCAS resolution advisory condition triggers an increase in size of electronic display (see column 6, lines 13-57, the scale increase from +500 to +6000 FPM). In addition, Feyereisen et al. disclose

Art Unit: 3661

an increasing the size of the indicator display (see at least [0064] and [0066]), it would have obvious to one of ordinary skill in the art that when the size of the indicator display increasing, the size of the fractional section indicator also increasing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Staggs et al. by combining TCAS resolution advisory condition triggers an increase in size of the fractional section of the arcuate VSI, in order to emphasize to the pilot the level of emergency and dangerous level so the pilot can determine an appropriate action to prevent collision to increase safety.

As per claim 34, Staggs et al. disclose the attribute is a color (see columns 13-14, lines 57-21).

5. Claims 35-36, and 38-42, are rejected under 35 U.S.C.103(a) as being unpatentable over Staggs et al. (6,685,541) in view of Feyereisen et al. (US 2003/0132860 A1), and Gordon et al. (6,686,851).

As per claims 35, and 38-40, Staggs et al. disclose an electronic display for presenting data from a vertical speed source aboard an aircraft, wherein display comprises: a fractional section of an arcuate vertical speed indicator scale (see columns 7-8, lines 62-2); a vertical speed indicator marker comprising a pointer (see column 7, line 60) showing a vertical speed of the aircraft as indicated by the vertical speed source, wherein fractional section of vertical speed indicator scale shows nonlinear graduations marked thereon in the vicinity of vertical speed indicator marker (see figure 1), TCAS resolution advisory indicators along a periphery of vertical speed indicator scale wherein TCAS resolution advisory indicators are shown during a TCAS resolution advisory condition, and wherein an attribute of vertical speed indicator marker

Art Unit: 3661

changes to match an attribute of TCAS resolution advisory indicators during the advisory condition (see column 6, lines 53-54; and columns 7-8, lines 58-4). Staggs et al. do not explicitly disclose change in shape in response to changes in the vertical speed depicted by VSI marker. However, as applicant's remarks in page 8 of the amendment, figure 3 shows a change in shape, according to applicant's figure 3, a change in shape means just showing an indicate of VSI in a **different portion** of a semicircle. Therefore, in related to Staggs et al., figure 1, Staggs et al. disclose a semicircle VSI scale, and from fractional section (.5 to 0), in along side of the semicircle, this section represents a shape of the semicircle; from fractional section (.5 to 4), in the bottom of semicircle, this section also represent another shape of the semicircle; and from fractional section (4 to 2), in another along side of the semicircle, this section represents another change in shape in response to changes in the vertical speed depicted by VSI marker. Therefore, it is obvious that Staggs et al. implicitly disclose change in shape in response to changes in the vertical speed depicted by VSI marker.

Staggs et al. do not disclose TCAS resolution advisory condition triggers an increase in size of electronic display. However, Feyereisen et al. disclose TCAS resolution advisory condition triggers an increase in size of electronic display (see [0063-0068]). Also, Staggs et al. do not disclose a digital numeric display. However, Gordon et al. disclose a digital numeric display (see columns 5-6, lines 41-10), and wherein fractional section of a vertical speed indicator scale shown by electronic display will change relative to the vertical speed depicted by vertical speed indicator marker (see column 5, lines 41-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Staggs et al., by combining change in shape in response to changes in the vertical speed depicted by VSI marker,

Art Unit: 3661

to show different indicated position of the aircraft vertical speed; also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Staggs et al., by combining TCAS resolution advisory condition triggers an increase in size of electronic display to emphasize to the pilot the level of emergency and dangerous level so the pilot can determine an appropriate action to prevent collision to increase safety, and a numeric display for indicate the present vertical speed to the pilot.

As per claims 36, and 41-42, Staggs et al. disclose the attribute is a color (see columns 13-14, lines 57-21).

6. Claims 37, 40, and 43, are rejected under 35 U.S.C.103(a) as being unpatentable over Staggs et al. (6,685,541), Feyereisen et al. (US 2003/0132860 A1), and Gordon et al. (6,686,851) as applied to claims 35, and 39 above, and further in view of Gralnick (4914733).

As per claims 37, 40, and 43, Staggs et al. do not disclose TCAS resolution advisory condition triggers an increase in size of the fractional section of the arcuate VSI. However, Gralnick discloses TCAS resolution advisory condition triggers an increase in size of electronic display (see column 6, lines 13-57, the scale increase from +500 to +6000 FPM). In addition, Feyereisen et al. disclose an increasing the size of the indicator display (see at least [0064] and [0066]), it would have obvious to one of ordinary skill in the art that when the size of the indicator display increasing, the size of the fractional section indicator also increasing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Staggs et al. by combining TCAS resolution advisory condition triggers an increase in size of the fractional section of the arcuate VSI, in order to emphasize to the pilot the

Art Unit: 3661

level of emergency and dangerous level so the pilot can determine an appropriate action to prevent collision to increase safety.

Remarks

7. Applicant's argument filed on 5/2/07 has been fully considered. Upon updated search, the new ground of rejection as above.

Staggs et al. (6,685,541), Feyereisen et al. (US 2003/0132860 A1), Gralnick (4914733). and Gordon et al. (6,686,851) still discloses the claims invention as above.

As cited above, Gralnick discloses TCAS resolution advisory condition triggers an increase in size of electronic display (see column 6, lines 13-57, the scale increase from +500 to +6000 FPM). In addition, Feyereisen et al. disclose an increasing the size of the indicator display (see at least [0064] and [0066]), it would have obvious to one of ordinary skill in the art that when the size of the indicator display increasing, the size of the fractional section indicator also increasing.

Also, as cited above, Staggs et al. do not explicitly disclose change in shape in response to changes in the vertical speed depicted by VSI marker. However, as applicant's remarks in page 8 of the amendment, figure 3 shows a change in shape, according to applicant's figure 3, a change in shape means just showing an indicate of VSI in a **different portion** of a semicircle. Therefore, in related to Staggs et al., figure 1, Staggs et al. disclose a semicircle VSI scale, and from fractional section (.5 to 0), in along side of the semicircle, this section represents a shape of the semicircle; from fractional section (.5 to 4), in the bottom of semicircle, this section also represent another shape of the semicircle; and from fractional section (4 to 2), in another along side of the semicircle, this section represents another change in shape in response to changes in

Art Unit: 3661

the vertical speed depicted by VSI marker. Therefore, it is obvious that Staggs et al. implicitly disclose change in shape in response to changes in the vertical speed depicted by VSI marker.

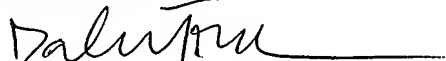
The motivations as cited above.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-F 6:30 AM-4:00 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Dalena Tran



July 17, 2007